

TITLE 83: PUBLIC UTILITIES
CHAPTER I: ILLINOIS COMMERCE COMMISSION
SUBCHAPTER c: ELECTRIC UTILITIES

PART 466
ELECTRIC INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES

Section

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Section 466.10 Scope

The Illinois Distributed Generation Interconnection Standard applies to generation facilities operated in parallel with an electric public utility distribution company in Illinois and meeting the following criteria:

- a) The nameplate capacity of the distributed generation facility is equal to or less than 10 MW; and

- b) The distributed generation facility is not subject to the interconnection requirements of either the Federal Energy Regulatory Commission (FERC) or the applicable Regional Transmission Organization (RTO) (either Midwest Independent Transmission System Operator, Inc. (MISO) or PJM Interconnection, LLC (PJM)).

Section 466.30 Definitions

Terms defined in Section 16-102 of the Public Utilities Act (Act) [220 ILCS 5/16-102] shall have the same meaning for purposes of this part as they have under Section 5/16-102 of the Act, unless further defined in this Part. The following words and terms, when used in this Part, have the following meanings unless the context indicates otherwise:

“Adverse system impact” means a negative effect that compromises the safety or reliability of the electric distribution system or materially affects the quality of electric service provided by the electric distribution company (EDC) to other customers.

“Affected system” means an electric system not owned or operated by the electric distribution company reviewing the interconnection request that could suffer an adverse system impact from the proposed interconnection.

“Applicant” means a person (or entity) who has submitted an interconnection request to interconnect a distributed generation facility to an EDC's electric distribution system.

“Area network” means a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit, generally used in large, densely populated metropolitan areas.

“Business day” means Monday through Friday, excluding State and federal holidays.

“Calendar day” means any day, including Saturdays, Sundays and State and federal holidays.

“Certificate of completion” means a certificate, in a form approved by the Commission, that contains information about the interconnection equipment to be used, its installation and local inspections (see Appendix B).

“Commissioning test” means tests applied to a distributed generation facility by the applicant after construction is completed to verify that the facility does not create adverse system impacts and performs to the submitted specifications. At a minimum, the scope of the commissioning tests performed shall include the commissioning test specified in Institute of Electrical and Electronics Engineers, Inc. (IEEE) Standard 1547 Section 5.4 “Commissioning tests.”

“Distributed generation facility” means the equipment used by an interconnection customer to generate or store electricity that operates in parallel with the electric distribution system. A distributed generation facility typically includes an electric generator, a prime mover, and the interconnection equipment required to safely interconnect with the electric distribution system or local electric power system.

“Distribution upgrade” means a required addition or modification to the electric distribution system to accommodate the interconnection of the distributed generation facility. Distribution upgrades do not include interconnection facilities.

“Draw-out type circuit breaker” means a switching device capable of making, carrying and breaking currents under normal and abnormal circuit conditions such as those of a short circuit. A draw-out circuit breaker can be physically removed from its enclosure creating a visible break in the circuit. The draw-out circuit breaker shall be capable of being locked in the open, draw-out position.

“Electric distribution company” (EDC) means any electric utility subject to the jurisdiction of the Commission.

“Electric distribution system” means the facilities and equipment owned and operated by the EDC and used to transmit electricity to ultimate usage points such as homes and industries from interchanges with higher voltage transmission networks that transport bulk power over longer distances. The voltage levels at which electric distribution systems operate differ among areas but generally operate at less than 100 kilovolts of electricity. “Electric distribution system” has the same meaning as the term “Area EPS,” as defined in Section 3.1.6.1 of IEEE Standard 1547.

“Fault current” is the electrical current that flows through a circuit during an electrical fault condition. A fault condition occurs when one or more electrical conductors contact ground or each other. Types of faults include phase to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase. Often, a fault current is several times larger in magnitude than the current that normally flows through a circuit.

“IEEE Standard 1547” is the Institute of Electrical and Electronics Engineers, Inc., 3 Park Avenue, New York, NY 10016-5997, Standard 1547 (2003)

“Standard for Interconnecting Distributed Resources with Electric Power Systems.” This incorporation does not include any later amendments or editions

“IEEE Standard 1547.1” is the IEEE Standard 1547.1 (2005) “Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems.” This incorporation does not include any later amendments or editions

“Interconnection customer” means a person or entity that interconnects a distributed generation facility to an electric distribution system.

“Interconnection equipment” means a group of components or an integrated system owned and operated by the interconnection customer that connects an electric generator with a local electric power system as that term is defined in Section 3.1.6.2 of IEEE Standard 1547 or with the electric distribution system. Interconnection equipment comprises all interface equipment including switchgear, protective devices, inverters or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.

“Interconnection facilities” means facilities and equipment required by the EDC to accommodate the interconnection of a distributed generation facility. Collectively, interconnection facilities include all facilities and equipment between the distributed generation facility’s interconnection equipment and the point of interconnection, including any modifications, additions, or upgrades necessary to physically and electrically interconnect the distributed generation facility to the electric distribution system. Interconnection facilities are sole use facilities and do not include distribution upgrades.

“Interconnection request” means an applicant's request, in a form approved by the Commission, for interconnection of a new distributed generation facility or to change the capacity or other operating characteristics of an existing distributed generation facility already interconnected with the electric distribution system.

“Interconnection study” is any study described in Sections 466.120.

“Lab certified” means a designation that the interconnection equipment meets the requirements set forth in Section 466.70.

“Line section” is that portion of an electric distribution system connected to an interconnection customer’s site, bounded by automatic sectionalizing devices and/or the end of the distribution line.

“Local electric power system” means facilities that deliver electric power to a load that is contained entirely within a single premises or group of premises. Local electric power system has the same meaning as that term has as defined in Section 3.1.6.2 of IEEE Standard 1547.

“Nameplate capacity” is the maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer and usually indicated on a nameplate physically attached to the power production equipment.

“Nationally recognized testing laboratory” or “NRTL” means a qualified private organization that meets the requirements of the Occupational Safety and Health Administration's (OSHA) regulations. *See* 29 CFR 1910.7, *et al.* (July 31, 2000). This incorporation does not include any later amendments or editions. NRTLs perform independent safety testing and product certification. Each NRTL shall meet the requirements as set forth by OSHA in its NRTL program.

“Parallel operation” or “parallel” means a distributed generation facility is connected electrically to the electric distribution system for longer than 100 milliseconds.

“Point of interconnection” means the point where the distributed generation facility is electrically connected to the electric distribution system. Point of interconnection has the same meaning as the term “point of common coupling” defined in Section 3.1.13 of IEEE Standard 1547.

“Primary line” means an electric distribution system line operating at greater than 600 volts.

“Queue position” means, for each distribution circuit or line section, the order of a completed interconnection request relative to all other pending completed interconnection requests on that distribution circuit or line section. It is established by the date that the EDC receives the completed interconnection request.

“Radial distribution circuit” means a circuit configuration in which independent feeders branch out radially from a common source of supply.

“Scoping meeting” means a meeting between representatives of the applicant and EDC conducted for the purpose of discussing interconnection issues and exchanging relevant information.

“Secondary line” means an electric distribution system line, sometimes referred to as a service line, operating at 600 volts or less.

“Shared transformer” means a transformer that supplies secondary voltage to more than one customer.

“Spot network” means a type of electric distribution system that uses two or more inter-tied transformers to supply an electrical network circuit. A spot network is generally used to supply power to a single customer or a small group of customers. Spot network has the same meaning as the term “spot network” defined in Section 4.1.4 of IEEE Standard 1547.

“Standard distributed generation interconnection agreement” means a standard interconnection agreement applicable to interconnection requests for distributed generation facilities. (see Appendices A and C).

“UL Standard 1741” means the standard titled “Inverters Converters, and Controllers for Use in Independent Power Systems,” November 7, 2005 edition, as used by Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096. This incorporation does not include any later amendments or editions.

“Witness test” means a verification either by an on-site observation or review of documents that the interconnection installation evaluation required by IEEE Standard 1547 Section 5.3 and the commissioning test required by IEEE Standard 1547 Section 5.4 have been performed. For interconnection equipment that has not been lab certified, the witness test shall also include verification of the on-site design tests as required by IEEE Standard 1547 Section 5.1 and verification of production tests required by IEEE Standard 1547 Section 5.2. All tests verified are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

Section 466.40 Technical standards

The technical standard to be used in evaluating interconnection requests governed by the Illinois Distributed Generation Interconnection Standard is IEEE Standard 1547.

Section 466.50 Interconnection requests

- a) Applicants seeking to interconnect a distributed generation facility shall submit an interconnection request to the EDC that owns the electric distribution system to which interconnection is sought. Applicants shall use interconnection request forms approved by the Commission.
- b) EDCs shall specify the fee by level that the applicant shall remit to process the interconnection request. The fee shall be specified in the interconnection request forms.
- c) Interconnection requests may be submitted electronically if agreed to by the parties.

Section 466.60 General requirements

- a) When an interconnection request for a distributed generation facility includes multiple energy production devices at a site for which the applicant seeks a single point of interconnection, the interconnection request shall be evaluated on the basis of the aggregate nameplate capacity of the multiple devices.

- b) When an interconnection request is for an increase in capacity for an existing distributed generation facility, the interconnection request shall be evaluated on the basis of the new total nameplate capacity of the distributed generation facility.
- c) EDCs shall designate a point of contact and provide contact information on its website. The point of contact shall be able to direct applicant questions concerning interconnection request submissions and the interconnection request process to knowledgeable individuals within the EDC.
- d) The information that the EDC makes available to potential applicants can include previously existing EDC studies that help applicants understand whether it is feasible to interconnect a distributed generation facility at a particular point on the EDC's electric distribution system. However, the EDC can refuse to provide the information to the extent that providing it violates security requirements or confidentiality agreements, or it is contrary to law or State or federal regulations. In appropriate circumstances, the EDC may require a confidentiality agreement prior to release of this information.
- e) When an interconnection request is deemed complete, any modification that is not agreed to by the EDC requires submission of a new interconnection request.
- f) When an applicant is not currently a customer of the EDC at the proposed site, the applicant shall provide, upon EDC request, proof of site control evidenced by the applicant's name on a property tax bill, deed, lease agreement or other legally binding contract.
- g) To minimize the cost to interconnect multiple distributed generation facilities, the EDC or the applicant may propose a single point of interconnection for multiple distributed generation facilities located at an interconnection customer site that is on contiguous property. If the applicant rejects the EDC's proposal for a single point of interconnection, the applicant shall pay any additional cost to provide a separate point of interconnection for each distributed generation facility. If the EDC, without written technical explanation, rejects the customer's proposal for a single point of interconnection, the EDC shall pay any additional cost to provide separate points of interconnection for each distributed generation facility.
- h) EDCs can require that distributed generation facilities have the capability to be isolated from the EDC. For distributed generation facilities interconnecting to a primary line, the isolation shall be by means of a lockable, visible-break isolation device accessible by the EDC. For distributed generation facilities interconnecting to a secondary line, the isolation shall be by means of a lockable isolation device whose status is indicated and is accessible by the EDC. The isolation device shall be installed, owned and maintained by the owner of the distributed generation facility and located electrically between the distributed generation facility and the point of interconnection. A draw-out type circuit breaker accessible to the EDC

with a provision for padlocking at the draw-out position satisfies the requirement for an isolation device.

- i) The interconnection customer shall allow the EDC to isolate the distributed generation facility. An interconnection customer may elect to provide the EDC access to an isolation device that is contained in a building or area that may be unoccupied and locked or not otherwise accessible to the EDC by installing a lockbox provided by the EDC that allows ready access to the isolation device. The lockbox shall be in a location determined by the EDC to be accessible by the EDC. The interconnection customer shall permit the EDC to affix a placard in a location of its choosing that provides instructions to EDC operating personnel for accessing the isolation device. If the EDC needs to isolate the distribution generation facility, the EDC shall not be held liable for any damages resulting from the actions necessary to isolate the generation facility.
- j) Any metering required for a distributed generation interconnection shall be installed, operated, and maintained in accordance with applicable EDC tariffs and agreements. Any such metering requirements shall be identified in the standard distributed generation interconnection agreement executed between the interconnection customer and the EDC.
- k) EDC monitoring and control of distributed generation facilities are permitted only when the nameplate rating is greater than 2 MW. Monitoring and control requirements shall be consistent with the EDC's published requirements and shall be clearly identified in the interconnection agreement between the interconnection customer and the EDC. Transfer trip shall not be considered EDC monitoring and control when required and installed to protect the electric distribution system or an affected system against adverse system impacts.
- l) The EDC can require a witness test after the distributed generation facility is constructed. The applicant shall provide the EDC at least 15 business days notice of the planned commissioning test for the distributed generation facility. The applicant and EDC shall schedule the witness test at a mutually agreeable time. If the witness test is not acceptable to the EDC, the applicant shall be granted 30 business days to address and resolve any deficiencies. The time period for addressing and resolving any deficiencies may be extended upon the mutual agreement of the EDC and the applicant prior to the end of the 30 business days. An initial request for extension shall not be denied by the EDC; subsequent requests may be denied. If the applicant fails to address and resolve the deficiencies to the EDC's satisfaction, the interconnection request shall be deemed withdrawn. Even if the EDC or an entity approved by the EDC does not witness a commissioning test, the applicant remains obligated to satisfy the interconnection test specifications and requirements set forth in IEEE Standard 1547 Section 5. The applicant shall, if requested by the EDC, provide a copy of all documentation in its possession regarding testing conducted pursuant to IEEE Standard 1547.1.

Section 466.70 Lab-certified equipment

An interconnection request may be eligible for expedited interconnection review under Section 466.90 if the distributed generation facility uses interconnection equipment that is lab-certified. Interconnection equipment shall be deemed to be lab certified upon establishment of the following:

- a) The interconnection equipment has been successfully tested in accordance with IEEE Standard 1547.1, and it complies with the appropriate codes and standards referenced in Section 466.70(f) below as demonstrated by any NRTL recognized by OSHA to test and certify interconnection equipment; and
- b) The interconnection equipment has been labeled and is publicly listed by such NRTL at the time of the interconnection application; and
- c) The NRTL testing the interconnection equipment makes all test standards and procedures that it used to perform equipment certification available, and, with applicant approval, the test data itself. The NRTL may make this information readily available by publishing it on its web site and by encouraging it to be included in the manufacturer's literature accompanying the equipment; and
- d) The applicant's use of the interconnection equipment falls within the use or uses for which the interconnection equipment was labeled and listed by the NRTL; and
- e) The generator, other electric sources, and/or interface components being utilized are compatible with the interconnection equipment and are consistent with the testing and listing specified by the NRTL for this type of interconnection equipment; and
- f) To meet the requirements for lab certification, interconnection equipment shall be evaluated by a NRTL in accordance with the following codes and standards:
 - 1) IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems (including use of IEEE 1547.1 testing protocols to establish conformity);
 - 2) UL 1741 Inverters, Converters, and Controllers and Interconnection System Requirement with Distributed Energy Resources; and
 - 3) 2008 National Electrical Code, National Fire Protection Agency (2008), 1 Batterymarch Park, Quincy, MA 02169-7471. This incorporation does not include any later amendments or editions.
- g) Lab certified interconnection equipment shall not require further design testing or production testing, as specified by IEEE Standard 1547 Sections 5.1 and 5.2, or

additional interconnection equipment modification to meet the requirements for expedited review; however, nothing herein shall preclude the need for an interconnection installation evaluation, commissioning tests or periodic testing as specified by IEEE Standard 1547 Sections 5.3, 5.4 and 5.5 or for a witness test conducted by an EDC.

Section 466.80 Determining the review level

An EDC shall determine whether an interconnection request should be processed under the Level 1, 2, 3 or 4 procedures by using the following screens:

- a) An EDC shall use Level 1 procedures to evaluate all interconnection requests to connect an inverter-based distributed generation facility when:
 - 1) The applicant filed a Level 1 application; and
 - 2) The distributed generation facility has a nameplate capacity of 10 kW or less; and
 - 3) The customer interconnection equipment proposed for the distributed generation facility is lab certified; and
 - 4) No construction of facilities by the EDC shall be required to accommodate the distributed generation facility.
- b) An EDC shall use Level 2 procedures for evaluating interconnection requests when:
 - 1) The applicant filed a Level 2 application; and
 - 2) The nameplate capacity rating is 2 MW or less; and
 - 3) The interconnection equipment proposed for the distributed generation facility is lab certified; and
 - 4) The proposed interconnection is to a radial distribution circuit; and
 - 5) No construction of facilities by the EDC shall be required to accommodate the distributed generation facility; or
- c) An EDC shall use Level 3 review procedures for evaluating interconnection requests to area networks and radial distribution circuits where power will not be exported based on the following criteria. For interconnection requests to the load side of an area network the following criteria shall be satisfied to qualify for a Level 3 expedited review:

- 1) The applicant filed a Level 3 application; and
 - 2) The nameplate capacity of the distributed generation facility is less than or equal to 50kW; and
 - 3) The proposed distributed generation facility uses a lab certified inverter-based equipment package; and
 - 4) The distributed generation facility uses reverse power relays and/or other protection functions that prevent the export of power into the area network; and
 - 5) The aggregate of all generation on the area network does not exceed the lower of 5% of an area network's maximum load or 50kW; and
 - 6) No construction of facilities by the EDC shall be required to accommodate the distributed generation facility.
- d) For interconnection requests to a radial distribution circuit, the following criteria shall be satisfied to qualify for a Level 3 expedited review:
- 1) The applicant filed a Level 3 application; and
 - 2) The aggregated total of the nameplate capacity of all of the generators on the circuit, including the proposed distributed generation facility, is 10 MW or less; and
 - 3) The distributed generation facility will use reverse power relays or other protection functions that prevent power flow onto the electric distribution system; and
 - 4) The distributed generation facility is not served by a shared transformer; and
 - 5) No construction of facilities by the EDC on its own system shall be required to accommodate the distributed generation facility.
- e) An EDC shall use the Level 4 study review procedures for evaluating interconnection requests when:
- 1) The applicant filed a Level 4 application; and
 - 2) The nameplate capacity of the small generation facility is 10 MW or less; and

- 3) Not all interconnection equipment or distributed generation facilities being used for the application is lab-certified.

Section 466.90 Level 1 expedited review

An EDC shall use the Level 1 interconnection review procedure for an interconnection request that meets the requirements specified in Section 466.80(a). An EDC may not impose additional requirements on Level 1 reviews not specifically authorized under this Section unless the applicant agrees.

- a) The EDC shall evaluate the potential for adverse system impacts using the following screens which shall be satisfied:
 - 1) For interconnection of a proposed distributed generation facility to a radial distribution circuit, the total distributed generation connected to the distribution circuit, including the proposed distributed generation facility, may not exceed 50% of the minimum load normally supplied by the distribution circuit. If minimum load values for the distribution circuit are not available, then the total generation on the distribution circuit, including the proposed distributed generation facility, may not exceed 15% of the maximum load normally supplied by the distribution circuit.
 - 2) For interconnection of a proposed distributed generation facility to the load side of spot network protectors, the proposed distributed generation facility shall utilize an inverter-based equipment package. The interconnection equipment that the applicant proposes to use for the distributed generation facility shall be lab certified. When aggregated with other generation, the interconnection equipment shall not exceed 5% of the spot network's maximum load or 50 kVa, whichever is less.
 - 3) When a proposed distributed generation facility is to be interconnected on a single-phase shared secondary line, the aggregate generation capacity on the shared secondary line, including the proposed distributed generation facility, shall not exceed 20 kVa.
 - 4) When a proposed distributed generation facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition may not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
 - 5) The EDC shall not be required to construct any facilities on its own system to accommodate the distributed generation facility's interconnection.
- b) The Level 1 interconnection shall use the following procedures.

- 1) The applicant submits an interconnection request using the appropriate form along with the Level 1 application fee (see Appendix A).
- 2) Within 7 business days after receipt of the interconnection request, the EDC shall inform the applicant whether the interconnection request is complete or not. If the request is incomplete, the EDC shall specify what materials are missing and the applicant has 10 business days to provide the missing information or the interconnection request shall be deemed withdrawn.
- 3) Within 15 business days after the EDC notifies the applicant that its interconnection request is complete, the EDC shall verify whether or not the distributed generation facility passes all the relevant Level 1 screens.
- 4) If the EDC determines and demonstrates that a distributed generation facility does not pass all relevant Level 1 screens, the EDC will provide a letter to the applicant explaining the reasons.
- 5) Otherwise, the EDC shall approve the interconnection request and provide to the applicant a signed version of the “*Conditional Agreement to Interconnect Distributed Generation Facility*” in Appendix A subject to the following conditions:
 - A) The distributed generation facility has been approved by local or municipal electric code officials with jurisdiction over the interconnection;
 - B) A certificate of completion (see Appendix B) has been returned to the EDC. Completion of local inspections may be designated on inspection forms used by local inspecting authorities;
 - C) The witness test has been successfully completed if required by the EDC or if the witness test has been waived according to (2)(c)(ii) of Appendix A; and
 - D) The applicant has signed a standard distributed generation interconnection agreement (see Appendix A). When an applicant does not sign the agreement within 30 business days after receipt of the agreement from the EDC, the interconnection request is deemed withdrawn unless the applicant requests to have the deadline extended for no more than 15 business days. An initial request for extension shall not be denied by the EDC; but subsequent requests may be denied.
- 6) If a distributed generation facility is not approved under a Level 1 review, and the EDC’s reasons for denying Level 1 status are not subject to

dispute, the applicant may submit a new interconnection request for consideration under Level 2, Level 3 or Level 4 procedures.

Section 466.100 Level 2 expedited review

An EDC shall use the Level 2 review procedure for interconnection requests that meet the Level 2 criteria in Section 466.80(b). An EDC may not impose additional requirements for Level 2 reviews not specifically authorized under this Section unless the applicant agrees.

- a) The EDC shall evaluate the potential for adverse system impacts using the following screens which shall be satisfied:
 - 1) For interconnection of a proposed distributed generation facility to a radial distribution circuit, the total distributed generation connected to the distribution circuit, including the proposed distributed generation facility, may not exceed 50% of the minimum normal load that is supplied to the distribution circuit when the EDC's distribution circuit is configured in a normal manner. If minimum load values for the EDC's distribution circuit are not available, then the total generation on the EDC's distribution circuit, including the proposed distributed generation facility, may not exceed 15% of the maximum load supplied to the distribution circuit.
 - 2) For interconnection of a proposed distributed generation facility to the load side of spot network protectors, the proposed distributed generation facility shall utilize an inverter-based equipment package. The customer interconnection equipment proposed for the distributed generation facility must be lab certified and, when aggregated with other generation, may not exceed 5% of a spot network's maximum load.
 - 3) The proposed distributed generation facility, in aggregation with other generation on the distribution circuit, may not contribute more than 25% to the distribution circuit's maximum fault current at the point on the primary line nearest the point of interconnection.
 - 4) The proposed distributed generation facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment including substation breakers, fuse cutouts, and line reclosers, or other customer equipment on the electric distribution system to be exposed to fault currents exceeding 90% of their short circuit interrupting capability. The interconnection may not occur under Level 2 if equipment on the EDC's distribution circuit is already exposed to fault currents of between 90% and 100% of the EDC's equipment short circuit interrupting capability. However, if fault currents exceed 100% of the EDC's equipment short circuit interrupting capability even without the distributed generation being interconnected, then the

EDC shall replace the equipment at its own expense, and interconnection may proceed under Level 2.

- 5) When a customer-generator facility is to be connected to 3-phase, 3-wire primary EDC distribution lines, a 3-phase or single-phase generator shall be connected phase-to-phase.
 - 6) When a customer-generator facility is to be connected to 3-phase, 4-wire primary EDC distribution lines, a 3-phase or single phase generator shall be connected line-to-neutral and shall grounded.
 - 7) When the proposed distributed generation facility is to be interconnected on single-phase shared secondary line, the aggregate generation capacity on the shared secondary line, including the proposed distributed generation facility, may not exceed 20 kW.
 - 8) When a proposed distributed generation facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition may not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
 - 9) A distributed generation facility, in aggregate with other generation interconnected to the distribution side of a substation transformer feeding the circuit where the distributed generation facility proposes to interconnect, may not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity.
 - 10) Except as permitted by additional review in Section 466.100(f), the EDC shall not be required to construct any facilities on its own system to accommodate the distributed generation facility's interconnection.
- b) The Level 2 interconnection shall use the following procedures:
- 1) The applicant submits an interconnection request using the appropriate form along with the Level 2 application fee (see Appendix D).
 - 2) Within 10 business days after receiving the interconnection request, the EDC shall inform the applicant whether the interconnection request is complete or not. If the request is incomplete, the EDC shall specify what materials are missing and the applicant has 10 business days to provide the missing information or the interconnection request shall be deemed withdrawn.
 - 3) After an interconnection request is deemed complete, the EDC shall assign a queue position based upon the date that the interconnection request is

determined to be complete. The EDC shall then inform the applicant of its queue position.

- 4) If, after determining that the interconnection request is complete, the EDC determines that it needs additional information to evaluate the distributed generation facility's adverse system impact, it shall request the information. The EDC may not restart the review process or alter the applicant's queue position because it requires the additional information. The EDC can extend the time to finish its evaluation only to the extent of the delay required for receipt of the additional information. If the additional information is not provided by the applicant within 15 business days the interconnection request shall be deemed withdrawn.
- 5) Within 20 business days after the EDC notifies the applicant it has received a completed interconnection request, the EDC shall:
 - A) Evaluate the interconnection request using the Level 2 screening criteria.
 - B) Provide the applicant with the EDC's evaluation including a written technical explanation. If an EDC does not have a record of receipt of the interconnection request and the applicant can demonstrate that the original interconnection request was delivered, the EDC shall expedite its review to complete the evaluation of the interconnection request within 20 business days after applicant's demonstration.
- c) When an EDC determines that the interconnection request passes the Level 2 screening criteria, or the EDC determines that the distributed generation facility can be interconnected safely and will not cause adverse system impacts, even if it fails one or more of the Level 2 screening criteria, it shall provide the applicant a standard distributed generation interconnection agreement (see Appendix C) the day the EDC makes its determination.
- d) Within 30 business days after receipt of the standard distributed generation interconnection agreement, the applicant shall sign and return the agreement to the EDC. If the applicant does not sign the agreement within 30 business days, the interconnection request shall be deemed withdrawn unless the applicant requests a 15 business day extension in writing. The initial request for extension may not be denied by the EDC. When construction is required under the provisions of Section 466.100, the interconnection of the distributed generation facility shall proceed according to any milestones agreed to by the parties in the standard distributed generation interconnection agreement.
- e) The standard distributed generation interconnection agreement is not final until:

- 1) All requirements in the standard distributed generation interconnection agreement are satisfied;
 - 2) The distributed generation facility is approved by electric code officials with jurisdiction over the interconnection;
 - 3) The applicant provides a certificate of completion (see Appendix B) to the EDC. Completion of local inspections may be designated on inspection forms used by local inspecting authorities; and
 - 4) The witness test is successfully completed if required by the EDC or if the witness test is waived according to Article 2.1.1 of Appendix C.
- f) Additional review may be appropriate when a distributed generation facility fails to meet one or more of the Level 2 screens. The EDC shall offer to perform additional review to determine whether there are minor modifications to the distributed generation facility or electric distribution system that would enable the interconnection to be made safely and so that it will not cause adverse system impacts. The EDC shall provide the applicant with a nonbinding estimate for the costs of additional review and the costs of minor modifications to the electric distribution system. The EDC shall undertake the additional review only after the applicant pays for the additional review. The EDC shall undertake the modifications only after the applicant pays for the modifications.
- g) If the distributed generation facility is not approved under a Level 2 review, the EDC shall provide the applicant written notification explaining its reasons for denying the interconnection request. The applicant may submit a new interconnection request for consideration under a Level 4 interconnection review. The queue position assigned to the Level 2 interconnection request shall be retained provided the request is made by the applicant within 15 business days after notification that the current interconnection request is denied.

Section 466.110 Level 3 expedited review

An EDC shall use the Level 3 expedited review procedure for an interconnection request that meets the criteria in Section 466.80(c) or (d). An EDC may not impose additional requirements for Level 3 reviews not specifically authorized under this section unless the applicant agrees.

- a) A Level 3 interconnection shall use the following procedures:
- 1) The applicant submits an interconnection request using the appropriate form along with the Level 3 application fee (see Appendix D).
 - 2) Within 10 business days after receiving the interconnection request, the EDC shall inform the applicant whether the interconnection request is complete or not. If the request is incomplete, the EDC shall specify what

materials are missing and the applicant has 10 business days to provide the missing information or the interconnection request shall be deemed withdrawn.

- 3) After an interconnection request is deemed complete, the EDC shall assign a queue position to it based upon the date the interconnection request is determined to be complete.
- 4) If, after determining that the interconnection request is complete, the EDC determines that it needs additional information to evaluate the distributed generation facility's adverse system impact, it shall request the information. The EDC may not restart the review process or alter the applicant's queue position because it requires the additional information. The EDC can extend the time to finish its evaluation only to the extent of the delay required for receipt of the additional information. If the additional information is not provided by the applicant within 15 business days the interconnection request shall be deemed withdrawn.
- 5) Interconnection requests meeting the requirements set forth in Section 466.80(c) for non-exporting distributed generation facilities interconnecting to an area network shall be presumed to be appropriate for interconnection. The EDC shall process the interconnection request to area networks using the following procedures:
 - A) The EDC shall evaluate the interconnection request under Level 2 interconnection review procedures as set forth in Section 466.100(a) except that the EDC has 25 business days to evaluate the interconnection request against the screens to determine whether interconnecting the distributed generation facility to the EDC's area network has any potential adverse system impacts.
 - B) If the Level 2 screens for area networks identify potential adverse system impacts, the EDC may determine at its sole discretion that it is inappropriate for the distributed generation facility to interconnect to the area network under Level 3 review, and the interconnection request is denied. The applicant may submit a new interconnection request for consideration under Level 4 procedures at the queue position assigned to the Level 3 interconnection request if the request is made within 15 business days after notification that the current application is denied.
- 6) For interconnection requests that meet the requirements of Section 466.80(d) for non-exporting distributed generation facilities interconnecting to a radial distribution circuit, the EDC shall evaluate the interconnection request under the Level 2 expedited review in Section 466.100(a).

- b) For a distributed generation facility that satisfies the criteria in Section 466.110 (a)(5) or (a)(6), the EDC shall approve the interconnection request and provide a standard interconnection agreement (see Appendix C) for the applicant to sign the day the EDC makes its determination.
- (c) Within 30 business days after receipt of the standard distributed generation interconnection agreement the applicant shall complete, sign and return the agreement to the EDC. If the applicant does not sign the standard distributed generation interconnection agreement within 30 business days, the request shall be deemed withdrawn unless the applicant requests a 15 business day extension in writing. An initial request for extension may not be denied by the EDC. After the standard distributed generation interconnection agreement is signed by the parties, interconnection of the distributed generation facility shall proceed according to any milestones agreed to by the parties in the standard distributed generation interconnection agreement.
- d) The interconnection agreement will not be final until:
 - 1) All requirements in the interconnection agreement are satisfied; and
 - 2) The distributed generation facility is approved by electric code officials with jurisdiction over the distributed generation facility; and
 - 3) The applicant provides a certificate of completion (see Appendix B) to the EDC; and
 - 4) The witness test is successfully completed if required by the EDC or if the witness test is waived according to Article 2.1.1 of Appendix C.
- e) If the distributed generation facility is not approved under a Level 3 review, the EDC shall provide the applicant written notification explaining its reasons for denying the interconnection request. The applicant may submit a new interconnection request for consideration under a Level 4 interconnection review. The queue position assigned to the Level 3 interconnection request shall be retained provided the request is made within 15 business days after notification that the current interconnection request is denied.

Section 466.120 Level 4 review

An EDC shall use the Level 4 study review procedures for an interconnection request that meets the criteria in Section 466.80(e).

- a) The applicant submits an interconnection request using the appropriate form along with the Level 4 application fee (see Appendix D).

- b) Within 10 business days after receipt of an interconnection request, the EDC shall notify the applicant whether the request is complete. When the interconnection request is not complete, the EDC shall provide the applicant a written list detailing information required to complete the interconnection request. The applicant has 10 business days to provide the required data or the interconnection request is considered withdrawn. The parties may agree to extend the time for receipt of the additional information. The interconnection request is deemed complete when the required information has been provided by the applicant, or the parties have agreed that the applicant may provide additional information at a later time.
- c) After an interconnection request is deemed complete, the EDC shall assign a queue position to it based upon the date the interconnection request is determined to be complete. The queue position of an interconnection request is used to determine the cost responsibility for the facilities necessary to accommodate the interconnection. The EDC shall notify the applicant about its position in the queue.
- d) After the interconnection request has been assigned to the queue, the following procedures shall be followed in performing a Level 4 study review:
 - 1) By mutual agreement of the parties, the scoping meeting, interconnection feasibility study, interconnection impact study, or interconnection facilities studies provided for in a Level 4 review and discussed in this Section may be waived or combined.
 - 2) If agreed to by the parties, a scoping meeting on a mutually agreed upon date and time will be held, after the EDC has notified the applicant that the Level 4 interconnection request is deemed complete or the applicant has requested that its interconnection request proceed under Level 4 review after failing the requirements of a Level 2 or Level 3 review. The meeting's purpose is to review the interconnection request, existing studies relevant to the interconnection request, and the results of the Level 1, Level 2 or Level 3 screening criteria.
 - 3) When the parties agree that an interconnection feasibility study shall be performed, the EDC shall provide to the applicant, no later than 10 business days after the receipt of a complete interconnection request or, if held, the scoping meeting, an interconnection feasibility study agreement (see Appendix E), including an outline of the scope of the study and an estimate of the cost to perform the study.
 - 4) When the parties agree that an interconnection feasibility study is not required, the EDC shall provide to the applicant, no later than 10 business days after the receipt of a complete interconnection request or, if held, the scoping meeting, an interconnection system impact study agreement (see

Appendix F), including an outline of the scope of the study and an estimate of the cost to perform the study.

- 5) If the parties agree that neither an interconnection feasibility study nor a system impact study is required, the EDC shall provide to the applicant, no later than 10 business days after receipt of a complete interconnection request or, if held, the scoping meeting, an interconnection facilities study agreement (see Appendix G) including an outline of the scope of the study and an estimate of the cost to perform the study.

e) The following guidelines shall govern all required interconnection studies:

- 1) An interconnection feasibility study shall include any necessary analyses for the purpose of identifying a potential adverse system impact to the EDC's electric distribution system that would result from the interconnection from among the following:
 - A) Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection.
 - B) Initial identification of any thermal overload or voltage limit violations resulting from the interconnection.
 - C) Initial review of grounding requirements and system protection.
 - D) Description and nonbinding estimated cost of facilities required to interconnect the distributed generation facility to the EDC's electric distribution system in a safe and reliable manner.
 - E) If an applicant requests that the interconnection feasibility study evaluate multiple potential points of interconnection, additional evaluations may be required. Additional evaluations shall be paid for by the applicant.
 - F) An interconnection system impact study is not required when the interconnection feasibility study concludes there is no adverse system impact, or when the study identifies an adverse system impact, but the EDC is able to identify a remedy without the need for an interconnection system impact study.
 - G) Each party can require that the standard form of interconnection feasibility study agreement approved by the Commission be used. If both parties agree, however, an alternative form can be used.
- 2) An interconnection system impact study evaluates the impact of the proposed interconnection on both the safety and reliability of the EDC's

electric distribution system. The study identifies and details the system impacts that result from interconnecting the distributed generation facility without distributed generation facility or electric distribution system modifications. It focuses on potential or actual adverse system impacts identified in the interconnection feasibility study, including those that were identified in the scoping meeting. The study shall consider all other distributed generating facilities that, on the date the interconnection system impact study is commenced, are directly interconnected with the EDC's system, have a pending higher queue position to interconnect to the electric distribution system, or have signed an interconnection agreement.

- A) A distribution interconnection system impact study shall be performed when a potential distribution system adverse system impact is identified in the interconnection feasibility study. The EDC shall send the applicant an interconnection system impact study agreement within 10 business days after transmittal of the interconnection feasibility study report. The agreement shall include an outline of the scope of the study and a non-binding estimate of the cost to perform the study. The impact study shall include any elements from among the following:
 - i) A load flow study;
 - ii) Identification of affected systems;
 - iii) An analysis of equipment interrupting ratings;
 - iv) A protection coordination study;
 - v) Voltage drop and flicker studies;
 - vi) Protection and set point coordination studies;
 - vii) Grounding reviews; or
 - viii) Impact on system operation.
- B) An interconnection system impact study shall consider any necessary criteria from among the following:
 - i) A short circuit analysis;
 - ii) A stability analysis;
 - iii) Alternatives for mitigating adverse system impacts on affected systems;

- iv) Voltage drop and flicker studies;
 - v) Protection and set point coordination studies; or
 - vi) Grounding reviews.
- C) The final interconnection system impact study shall provide the following:
- i) The underlying assumptions of the study;
 - ii) The results of the analyses;
 - iii) A list of any potential impediments to providing the requested interconnection service; and
 - iv) Required distribution upgrades.
- D) A non-binding estimate of cost and time to construct any required distribution upgrades.
- E) The parties may use an interconnection impact study agreement as approved by the Commission. If both parties agree, however, an alternative form can be used.
- 3) The interconnection facilities study shall be conducted as follows:
- A) A report shall be transmitted to the applicant with an interconnection facilities study agreement, which includes an outline of the scope of the study and a non-binding estimate of the cost to perform the study within 10 business days after completion of the interconnection system impact study.
 - B) The interconnection facilities study shall estimate the cost of the equipment, engineering, procurement and construction work, including overheads, needed to implement the conclusions of the interconnection feasibility study and the interconnection system impact study. The interconnection facilities study shall identify:
 - i) The electrical switching configuration of the equipment, including transformer, switchgear, meters and other station equipment;

- ii) The nature and estimated cost of the EDC's interconnection facilities and distribution upgrades necessary to accomplish the interconnection; and
 - iii) An estimate for the time required to complete the construction and installation of the facilities.
- C) The EDC may agree to permit an applicant to separately arrange for a third party to design and construct the required interconnection facilities. In such a case, when the applicant agrees to separately arrange for design and construction, and to comply with security and confidentiality requirements, the EDC shall make all relevant information and required specifications available to the applicant to permit the applicant to obtain an independent design and cost estimate for the facilities, which shall be built in accordance with the EDC's specifications.
- D) Upon completion of the interconnection facilities study, and after the applicant agrees to pay for the interconnection facilities and distribution upgrades identified in the interconnection facilities study, the EDC shall provide a standard distributed generation interconnection agreement (see Appendix C) for the applicant to sign the day the EDC makes its determination.
- E) In the event that distribution upgrades are identified in the impact study that shall be added only in the event that higher-queued customers not yet interconnected eventually complete and interconnect their generation facilities, the applicant may elect to interconnect without paying for such upgrades at the time of the interconnection under the condition that it shall pay for such upgrades at the time the higher-queued customer is ready to interconnect. If the applicant does not pay for such upgrades at that time, the EDC will require it to immediately disconnect its distribution generation facility to accommodate the higher-queued customer.
- F) The parties may use an interconnection facility study agreement approved by the Commission. If both parties agree, however, an alternative form can be used.
- f) When an EDC determines, as a result of the studies conducted under a Level 4 review, that it is appropriate to interconnect the distributed generation facility, the EDC shall provide the applicant with a standard distributed generation interconnection agreement. If the interconnection request is denied, the EDC shall provide the applicant a written explanation.

- g) Within 30 business days after receipt of the standard distributed generation interconnection agreement, the applicant shall provide all necessary information required of the applicant by the agreement, and the EDC shall develop all other information required of the EDC by the Agreement. After completing the Agreement with the additional information, the applicant shall sign and return the agreement to the EDC. If the applicant does not sign the agreement within 30 business days after its completion, the interconnection request shall be deemed withdrawn unless the applicant requests in writing to have the deadline extended by no more than 15 business days. The initial request for extension may not be denied by the EDC. If the applicant does not sign the agreement after the 15 business day extension, the interconnection request shall be deemed withdrawn. When construction is required, the interconnection of the distributed generation facility shall proceed according to milestones agreed to by the parties in the standard distributed generation interconnection agreement.
- h) The standard distributed generation interconnection agreement is not final until:
 - 1) The requirements of the interconnection agreement are satisfied; and
 - 2) The distributed generation facility is approved by electric code officials with jurisdiction over the interconnection; and
 - 3) The applicant provides a certificate of completion (see Appendix B) to the EDC. Completion of local inspections may be designated on inspection forms used by local inspecting authorities; and
 - 4) The witness test is successfully completed if required by the EDC or if the witness test is waived according to Article 2.1.1 of Appendix C.

Section 466.130 Disputes

- a) A Party shall attempt to resolve all disputes regarding interconnection promptly and in a good faith manner. A Party shall provide prompt written notice of the existence of the dispute, including sufficient detail to identify the scope of the dispute, to the other Party in order to attempt to resolve the dispute in a good faith manner.
- b) An informal meeting between the Parties shall be held within 10 days after receipt of the written notice. Persons with decision-making authority from each Party shall attend such meeting. In the event said dispute involves technical issues, persons with sufficient technical expertise and familiarity with the issue in dispute from each Party shall also attend the informal meeting. If a Party chooses, such a meeting may be conducted by teleconference.
- c) Subsequent to the informal meeting held between the Parties within ten days after written notice of a dispute, a party may seek resolution through complaint or

mediation procedures available at the Consumer Services Division (CSD) of the Commission. The Commission may designate an engineer from the Commission's Energy Division to assist in resolving the dispute. Dispute resolution will be conducted in an informal, expeditious manner to reach resolution with minimal costs and delay. When available, dispute resolution may be conducted by phone.

- d) Pursuit of dispute resolution may not affect an interconnection applicant with regard to consideration of an interconnection request or an interconnection applicant's position in the EDC's interconnection queue.

Section 466.140 Records

- a) An EDC shall maintain records specified in this subsection for a minimum of three years:
 - 1) The total number of and the nameplate capacity of the completed interconnection requests received, approved and denied under Level 1, Level 2, Level 3 and Level 4 reviews; and
 - 2) The fuel type, total number and the nameplate capacity of distributed generation facilities approved.
- b) An EDC shall provide a public report to the Commission containing the information required in subsection (a) within 90 calendar days after the close of each calendar year. An electronic version, in a legible 12 point font size in PDF (Adobe Acrobat Portable Document Format) shall be delivered to the Commission's offices on CDs (Compact Discs) or DVDs (Digital Video Discs and Digital Versatile Discs). If the computerized version cannot be directly converted from the word processing document, and must therefore be scanned from paper, it shall be saved in a PDF that includes both image and text to allow indexing.
- c) Each EDC shall retain copies of studies it performs to determine the feasibility of, system impacts of, or facilities required by the interconnection of any distributed generation facility. The EDC shall provide the applicant copies of any studies performed in analyzing the applicant's interconnection request upon applicant request. However, an EDC has no obligation to provide any future applicants any information regarding prior interconnection requests.

Section 466.APPENDIX A Level 1 Application and Contract

**Illinois Standard Distributed Generation Interconnection
Level 1
Interconnection Request Application Form and
Conditional Agreement to Interconnect
(Lab Certified Inverter-based Distributed Generation Facilities
10 kW and Smaller)**

AN APPLICATION FEE OF \$50.00 MUST BE SUBMITTED WITH THE APPLICATION.

Interconnection Applicant Contact Information

Name _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Alternate Contact Information (if different from Applicant)

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Equipment Contractor

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor (if Different from Equipment Contractor):

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

License number: _____

Active License? Yes ___ No ___

Is the Interconnection Customer requesting Net Metering in accordance with 83 Ill. Adm. Part 465?

Yes ☐ No ☐

Distributed Generation Facility ("Facility") Information

Facility Address: _____

City: _____ State: _____ Zip Code: _____

Electric Distribution Company (EDC) serving Facility site: _____

Electric Supplier (if different from EDC): _____

Account Number of Facility site (existing EDC customers): _____

Inverter Manufacturer: _____ Model _____

Is the inverter lab certified as that term is defined in the Illinois Distributed Generation

Interconnection Standard? Yes ☐ No ☐

(If yes, attach manufacturer's technical specifications and label information from a nationally recognized testing laboratory.)

Generation Facility Nameplate Rating: _____(kW) _____ (kVA) _____(AC Volts)

Prime Mover: Photovoltaic ☐ Reciprocating Engine ☐ Fuel Cell ☐

Turbine ☐ Other _____

Energy Source: Solar ☐ Wind ☐ Hydro ☐ Diesel ☐ Natural Gas

Fuel Oil ☐ Other _____

Commissioning Date: _____

(If the Commissioning Date changes, the interconnection customer must inform the EDC as soon as it aware of the changed date.)

Insurance Disclosure

The attached terms and conditions contain provisions related to liability, and indemnification and should be carefully considered by the interconnection customer. The interconnection customer is not required to obtain general liability insurance coverage as a precondition for interconnection approval. However, due to the risk of incurring damages, the interconnection customer is advised to protect itself with insurance sufficient to insure against all reasonably foreseeable liability responsibilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made.

Customer Signature

I hereby certify that: (1) I have read and understand the terms and conditions which are attached hereto by reference; (2) I hereby agree to comply with the attached terms and conditions; and (3) to the best of my knowledge, all of the information provided in this application request form is complete and true.

Applicant Signature: _____

Title: _____ Date: _____

.....

Conditional Agreement to Interconnect Distributed Generation Facility

Receipt of the application fee is acknowledged and, by its signature below, the EDC has determined the interconnection request is complete. Interconnection of the distributed generation facility is conditionally approved contingent upon the attached terms and conditions of this Agreement, the return of the attached Certificate of Completion duly executed verification of electrical inspection and successful witness test.

EDC Signature: _____ Date: _____

Name: _____ Title: _____

Terms and Conditions for Interconnection

- 1) **Construction of the Distributed Generation Facility.** The interconnection customer may proceed to construct (including operational testing not to exceed 2 hours) the distributed generation facility once the conditional Agreement to interconnect a distributed generation facility has been signed by the EDC.
- 2) **Final Interconnection and Operation.** The interconnection customer may operate the distributed generation facility and interconnect with the EDC's electric distribution system once all of the following have occurred:
 - a) **Electrical Inspection:** Upon completing construction, the interconnection customer will cause the distributed generation facility to be inspected by the local electrical inspection authority who shall establish that the distributed generator facility meets local code requirements.
 - b) **Certificate of Completion:** The interconnection customer shall provide the EDC with a copy of the Certificate of Completion with all relevant and necessary information filled in by the interconnection customer, as well as an inspection form from the local electrical inspection authority demonstrating that the distributed generation facility passed inspection.
 - c) **EDC has completed its witness test as per the following:**
 - i) Within 10 business days of the commissioning date, the EDC must, upon reasonable notice and at a mutually convenient time, conduct a witness test of the distributed generation facility to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes.
 - ii) If the EDC does not perform the witness test within the 10 business days of the commissioning date or such other time as is mutually agreed to by the parties, the witness test is deemed waived unless the EDC cannot do so for good cause. In such cases, upon EDC request, the interconnection customer shall agree to another date for the test within 10 business days of the original scheduled date.
- 3) **IEEE 1547.** The distributed generation facility shall be installed, operated and tested in accordance with the requirements of The Institute of Electrical and Electronics Engineers, Inc. (IEEE), 3 Park Avenue New York, NY 10016-5997, Standard 1547 (2003) "Standard for Interconnecting Distributed Resources with Electric Power Systems."
- 4) **Access.** The EDC shall have direct, unabated access to the disconnect switch and metering equipment of the distributed generation facility at all times. The EDC shall provide 5 business days notice to the customer prior to using its right of access except in emergencies.
- 5) **Metering.** Any required metering shall be installed pursuant to Illinois Commerce Commission approved tariffs.
- 6) **Disconnection.** The EDC may disconnect the distributed generation facility upon any of the following conditions, but must reconnect the distributed generation facility once the condition is cured:
 - a) For scheduled outages provided the distributed generation facility is treated in the same manner as EDC's load customers;

- b) For unscheduled outages or emergency conditions;
 - c) If the distributed generation facility does not operate in the manner consistent with this Agreement;
 - d) Improper installation or failure to pass the witness test;
 - e) If the distributed generation facility is creating a safety, reliability or a power quality problem; or
 - f) The interconnection equipment used by the distributed generation facility is delisted by the Nationally Recognized Testing Laboratory that provided the listing at the time the interconnection was approved.
- 7) **Indemnification.** The interconnection customer shall indemnify and defend the EDC and the EDC's directors, officers, employees, and agents from all damages and expenses resulting from any third party claim arising out of or based upon the interconnection customer's (a) negligence or willful misconduct or (b) breach of this Agreement, except to the extent caused by the EDC's gross negligence or willful misconduct. The EDC shall indemnify and defend the interconnection customer and the interconnection customer's directors, officers, employees, and agents from all damages and expenses resulting from a third party claim arising out of or based upon the EDC's (a) negligence or willful misconduct or (b) breach of this Agreement, except to the extent caused by the interconnection customer's gross negligence or willful misconduct.
- 8) **Limitation of Liability.** Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.
- 9) **Termination.** This Agreement may be terminated under the following conditions:
- a) By interconnection customer - The interconnection customer may terminate this interconnection agreement by providing written notice to the EDC. If the interconnection customer ceases operation of the distributed generation facility, the interconnection customer must notify the EDC
 - b) By the EDC - The EDC may terminate this Agreement if the interconnection customer fails to remedy a violation of terms of this Agreement within 30 calendar days after notice, or such other date as may be mutually agreed to prior to the expiration of the 30 calendar day remedy period. The termination date can be no less than 30 calendar days after the interconnection customer receives notice of its violation from the EDC.
- 10) **Modification of Distributed Generation Facility.** The interconnection customer must receive written authorization from the EDC before making any changes to the distributed generation facility that could affect the EDC's distribution system. If the interconnection customer makes such modifications without the EDC's prior written authorization, the EDC shall have the right to disconnect the distributed generation facility.
- 11) **Permanent Disconnection.** In the event the Agreement is terminated, the EDC shall have the right to disconnect its facilities or direct the interconnection customer to disconnect its distributed generation facility.

- 12) **Disputes.** Each party agrees to attempt to resolve all disputes regarding the provisions of this agreement that cannot be resolved between the two parties pursuant to the dispute resolution provisions found in 83 Ill. Adm. Part 466.130.
- 13) **Governing Law, Regulatory Authority, and Rules.** The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of Illinois. Nothing in this Agreement is intended to affect any other agreement between the EDC and the interconnection customer.
- 14) **Survival Rights.** This Agreement shall remain in effect after termination to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the Agreement.
- 15) **Assignment/Transfer of Ownership of the Distributed Generation Facility.** This Agreement shall terminate upon the transfer of ownership of the distributed generation facility to a new owner unless the transferring owner assigns the Agreement to the new owner, the new owner agrees in writing to the terms of this agreement, and the transferring owner so notifies the EDC in writing prior to the transfer of ownership.
- 16) **Definitions.** Any term used herein and not defined shall have the same meaning as the defined terms used in 83 Ill. Adm. Part 466 (the Illinois Distributed Generation Interconnection Standard).
- 17) **Notice.** The parties may mutually agree to provide notices, demands, comments, or requests by electronic means such as e-mail. Absent agreement to electronic communication, or unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to Interconnection Customer:

Use the contact information provided in the interconnection customer's application. The interconnection customer is responsible for notifying the EDC of any change in the contact party information, including change of ownership.

If to EDC:

Use the contact information provided below. The EDC is responsible for notifying the interconnection customer of any change in the contact party information.

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Section 466.APPENDIX B Certificate of Completion

Certificate of Completion (To be completed and returned to the EDC when installation is complete and final electric inspector approval has been obtained¹)

Interconnection Customer Information

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Installer

Check if owner-installed ☐

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Final Electric Inspection and Interconnection Customer Signature

The distributed generation facility is complete and has been approved by the local electric inspector having jurisdiction. A signed copy of the electric inspector's form indicating final approval is attached. The interconnection customer acknowledges that it shall not operate the distributed generation facility until receipt of the final acceptance and approval by the EDC as provided below.

Signed _____ Date _____

(Signature of interconnection customer)

Printed Name: _____

Check if copy of signed electric inspection form is attached ☐

Check if copy of as built documents is attached (projects larger than 10 kW only) ☐

.....

¹ Prior to interconnected operation, the interconnection customer is required to complete this form and return it to the EDC. Use contact information provided on the EDC's web page for generator interconnection to obtain mailing address/fax number/e-mail address

Acceptance and Final Approval for Interconnection (for EDC use only)

The interconnection agreement is approved and the distributed generation facility is approved for interconnected operation upon the signing and return of this Certificate of Completion by EDC:

Electric Distribution Company waives Witness Test? (*Initial*) Yes (_____) No (_____)

If not waived, date of successful Witness Test: _____ Passed: (*Initial*) (_____)

EDC Signature: _____ Date: _____

Printed Name: _____ Title: _____

Section 466.APPENDIX C Levels 2 to 4 Contract

STANDARD AGREEMENT FOR INTERCONNECTION OF DISTRIBUTED GENERATION FACILITIES WITH A CAPACITY LESS THAN OR EQUAL TO 10 MW

This agreement ("Agreement") is made and entered into this _____ day of _____, by and between _____ ("interconnection customer"), as an individual person, or as a _____ organized and existing under the laws of the State of _____, and _____, ("Electric Distribution Company" (EDC)), a _____ existing under the laws of the State of Illinois. Interconnection customer and EDC each may be referred to as a "Party," or collectively as the "Parties."

Recitals:

Whereas, interconnection customer is proposing to, install or direct the installation of a distributed generation facility, or is proposing a generating capacity addition to an existing distributed generation facility, consistent with the interconnection request application form completed by interconnection customer on _____; and

Whereas, the interconnection customer will operate and maintain, or cause the operation and maintenance of the distributed generation facility; and

Whereas, interconnection customer desires to interconnect the distributed generation facility with EDC's electric distribution system.

Now, therefore, in consideration of the premises and mutual covenants set forth herein, and other good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

Article 1. Scope and Limitations of Agreement

- 1.1 This Agreement shall be used for all approved interconnection requests for distributed generation facilities that fall under Levels 2, 3 and 4 according to the procedures set forth in Part 466 of the Commission's rules (83 Ill. Adm. Part 466) (referred to as the Illinois Distributed Generation Interconnection Standard).
- 1.2 This Agreement governs the terms and conditions under which the distributed generation facility will interconnect to, and operate in parallel with, the EDC's electric distribution system.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the interconnection customer's power.
- 1.4 Nothing in this Agreement is intended to affect any other agreement between the EDC and the interconnection customer.
- 1.5 Terms used in this agreement are defined as in Section 466.30 of the Illinois Distributed Generation Interconnection Standard unless otherwise noted.

- 1.6 Responsibilities of the Parties
- 1.6.1 The Parties shall perform all obligations of this Agreement in accordance with all applicable laws and regulations.
- 1.6.2 The EDC shall construct, own, operate, and maintain its interconnection facilities in accordance with this Agreement.
- 1.6.3 The interconnection customer shall construct, own, operate, and maintain its distributed generation facility and interconnection facilities in accordance with this Agreement.
- 1.6.4 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of interconnection.
- 1.6.5 The interconnection customer agrees to design, install, maintain and operate its distributed generation facility so as to minimize the likelihood of causing an adverse system impact on the electric distribution system or any other electric system that is not owned or operated by the EDC.
- 1.7 Parallel Operation Obligations
- Once the distributed generation facility has been authorized to commence parallel operation, the interconnection customer shall abide by all operating procedures established in IEEE1547 and any other applicable laws, statutes or guidelines, including those specified in Attachment 4 of this Agreement.
- 1.8 Metering
- The interconnection customer shall be responsible for the cost to purchase, install, operate, maintain, test, repair, and replace metering and data acquisition equipment specified in Attachments 5 and 6 of this Agreement.
- 1.9 Reactive Power
- 1.9.1 The interconnection customer shall design its distributed generation facility to maintain a power factor at the point of interconnection that is within the power factor range specified by the EDC in Attachment 4. The EDC shall not specify a power factor range that is more stringent than the power factor range load customers of comparable size must maintain in order to avoid reactive demand charges.
- 1.9.2 Any EDC requirements for meeting a specific voltage or specific reactive power schedule as a condition for interconnection shall be clearly specified in Attachment 4. Under no circumstance shall the EDC's additional requirements for voltage or reactive power schedules exceed the normal operating capabilities of the distributed generation facility.
- 1.9.3 If the interconnection customer does not operate the distributed generation facility within the power factor range specified in Attachment 4, or does not operate the distributed generation facility in accordance with a voltage or reactive power schedule specified in Attachment 4, the interconnection customer is in default, and the terms of Article 6.5 apply.

1.10 Standards of Operations

Interconnection customer must obtain all certifications, permits, licenses and approvals necessary to construct, operate and maintain the facility and to perform its obligations under this Agreement. Interconnection customer is responsible for coordinating and synchronizing the distributed generation facility's equipment with the EDC's system. Interconnection customer is responsible for any damage that is caused by the interconnection customer's failure to coordinate or synchronize the distributed generation facility with the electric distribution system. The interconnection customer agrees to be primarily liable for any damages resulting from the continued operation of the distributed generation facility after the EDC ceases to energize the line section to which the distributed generation facility is connected. In Attachment 4 the EDC shall specify the shortest reclose time setting for its protection equipment that could affect the distributed generation facility. EDC shall notify the interconnection customer at least 10 business days prior to adopting a faster reclose time on any automatic protective equipment such as a circuit breaker or line recloser, that might affect the distributed generation facility.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

The interconnection customer shall test and inspect its distributed generation facility including the interconnection equipment prior to interconnection in accordance with IEEE Standard 1547 (2003) and IEEE Standard 1547.1 (2005). The interconnection customer shall not operate its distributed generation facility in parallel with EDC's electric distribution system without prior written authorization by the EDC as provided for in Articles 2.1.1-2.1.3.

2.1.1 The EDC shall perform a witness test after construction of the distributed generation facility is completed but before parallel operation, unless the EDC specifically waives the witness test. The interconnection customer shall provide the EDC at least 15 business days notice of the planned commissioning test for the distributed generation facility. If the EDC performs a witness test at a time that is not concurrent with the commissioning test, it shall contact the interconnection customer to schedule the witness test at a mutually agreeable time within 10 business days after the scheduled commissioning test designated on this application. If the EDC does not perform the witness test within 10 business days after the commissioning test, the witness test is deemed waived unless the parties mutually agree to extend the date for scheduling the witness test, or unless the EDC cannot do so for good cause, in which case, the parties shall agree to another date for scheduling the test within 10 business days after the original scheduled date. If the witness test is not acceptable to the EDC, the interconnection customer has 30 business days to address and resolve any deficiencies. This time period may be extended upon agreement between the EDC and the interconnection customer. If the interconnection customer fails to address and resolve the deficiencies to

the satisfaction of the EDC, the applicable cure provisions of Article 6.5 shall apply. The interconnection customer shall, if requested by the EDC, provide a copy of all documentation in its possession regarding testing conducted pursuant to IEEE Standard 1547.1.

2.1.2 If the interconnection customer conducts interim testing of the distributed generation facility prior to the witness test, the interconnection customer shall obtain permission before each occurrence of operating the distributed generation facility in parallel with the electric distribution system. The EDC may, at its own expense, send qualified personnel to the distributed generation facility to observe such interim testing, but it cannot mandate that these tests be considered in the final witness test. The EDC is not required to observe such interim testing or precluded from requiring the tests be repeated at the final witness test.

2.1.3 After the distributed generation facility passes the witness test, the EDC shall affix an authorized signature to the certificate of completion and return it to the interconnection customer approving the interconnection and authorizing parallel operation. Such authorization shall not be conditioned or delayed.

2.2 Commercial Operation

The interconnection customer shall not operate the distributed generation facility, except for interim testing as provided in Article 2.1, until such time as the certificate of completion is signed by all Parties.

2.3 Right of Access

The EDC must have access to the disconnect switch and metering equipment of the distributed generation facility at all times. When practical, the EDC shall provide notice to the customer prior to using its right of access.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by all Parties.

3.2 Term of Agreement

This Agreement shall become effective on the effective date and shall remain in effect unless terminated earlier in accordance with Article 3.3 of this Agreement.

3.3 Termination

3.3.1 The interconnection customer may terminate this Agreement at any time by giving the EDC 30 calendar days prior written notice.

3.3.2 Either Party may terminate this Agreement after default pursuant to Article 6.5.

3.3.3 The EDC may terminate upon 60 calendar days' prior written notice for failure of the interconnection customer to complete construction of the distributed generation facility within 12 months after the in-service date as

specified by the Parties in Attachment 2, which may be extended by agreement between the Parties.

- 3.3.4 The EDC may terminate this Agreement upon 60 calendar days' prior written notice if the interconnection customer has abandoned, cancelled, permanently disconnected or stopped development, construction, or operation of the distributed generation facility or if the interconnection customer fails to operate the distributed generation facility in parallel with EDC's electric system for three consecutive years.
- 3.3.5 Upon termination of this Agreement, the distributed generation facility will be disconnected from the EDC's electric distribution system. Terminating this Agreement does not relieve either Party of its liabilities and obligations that are owed or continuing when the Agreement is terminated.

3.4 Temporary Disconnection

A Party may temporarily disconnect the distributed generation facility from the electric distribution system in the event one or more of the following conditions or events occurs:

- 3.4.1 Emergency conditions—shall mean any condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that the EDC determines is likely to cause an adverse system impact, or it is likely to have a material adverse effect on the EDC's electric distribution system, interconnection facilities or other facilities, or it is likely to interrupt or materially interfere with the provision of electric utility service to other customers; or (3) that, is likely to cause a material adverse effect on the distributed generation facility or the interconnection equipment. Under emergency conditions, the EDC or the interconnection customer may suspend interconnection service and temporarily disconnect the distributed generation facility from the electric distribution system. The EDC must notify the interconnection customer when it becomes aware of any conditions that might affect the interconnection customer's operation of the distributed generation facility. The interconnection customer shall notify the EDC when it becomes aware of any condition that might affect the EDC's electric distribution system. To the extent information is known, the notification shall describe the condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.
- 3.4.2 Scheduled maintenance, construction, or repair – the EDC may interrupt interconnection service or curtail the output of the distributed generation facility and temporarily disconnect the distributed generation facility from the EDC's electric distribution system when necessary for scheduled maintenance, construction, or repairs on EDC's electric distribution system. To the extent possible, the EDC shall provide the interconnection customer with notice five business days before an interruption. The EDC

shall coordinate the reduction or temporary disconnection with the interconnection customer; however, the interconnection customer is responsible for out-of-pocket costs incurred by the EDC for deferring or rescheduling maintenance, construction or repair at the interconnection customer's request.

- 3.4.3 Forced outages - The EDC may suspend interconnection service to repair the EDC's electric distribution system. The EDC shall provide the interconnection customer with prior notice, if possible. If prior notice is not possible, the EDC shall, upon written request, provide the interconnection customer written documentation after the fact explaining the circumstances of the disconnection.
- 3.4.4 Adverse system impact – the EDC must provide the interconnection customer with a written notice of its intention to disconnect the distributed generation facility if the EDC determines that operation of the distributed generation facility creates an adverse system impact. The documentation that supports the EDC's decision to disconnect must be provided to the interconnection customer. The EDC may disconnect the distributed generation facility if, after receipt of the notice, the interconnection customer fails to remedy the adverse system impact unless emergency conditions exist in which case the provisions of Article 3.4.1 apply. The EDC may continue to leave the generating facility disconnected until the adverse system impact is corrected.
- 3.4.5 Modification of the distributed generation facility - The interconnection customer must receive written authorization from the EDC prior to making any change to the distributed generation facility, other than a minor equipment modification. If the interconnection customer modifies its facility without the EDC's prior written authorization, the EDC has the right to disconnect the distributed generation facility until such time as the EDC concludes the modification poses no threat to the safety or reliability of its electric distribution system.
- 3.4.6 The EDC is not responsible for any lost opportunity or other costs incurred by the interconnection customer as a result of an interruption of service under Article 3.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

- 4.1.1 The interconnection customer shall pay for the cost of the interconnection facilities itemized in Attachment 3. The EDC shall identify the additional interconnection facilities necessary to interconnect the distributed generation facility with the EDC's electric distribution system, the cost of those facilities, and the time required to build and install those facilities.

- 4.1.2 The interconnection customer is responsible for its expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its interconnection equipment.

4.2 Distribution Upgrades

The EDC shall design, procure, construct, install, and own any distribution upgrades. The actual cost of the distribution upgrades, including overheads, shall be directly assigned to the interconnection customer whose distributed generation facility caused the need for the distribution upgrades.

Article 5. Billing, Payment, Milestones, and Financial Security

5.1 Billing and Payment Procedures and Final Accounting (Applies to additional reviews conducted under a Level 2 review and Level 4 reviews)

5.1.1 The EDC shall bill the interconnection customer for the design, engineering, construction, and procurement costs of EDC-provided interconnection facilities and distribution upgrades contemplated by this Agreement as set forth in Attachment 3. The billing shall occur on a monthly basis, or as otherwise agreed to between the Parties. The interconnection customer shall pay each bill within 30 calendar days after receipt, or as otherwise agreed to between the Parties.

5.1.2 Within 90 calendar days after completing the construction and installation of the EDC's interconnection facilities and distribution upgrades described in Attachments 2 and 3 to this Agreement, the EDC shall provide the interconnection customer with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation of the EDC's interconnection facilities and distribution upgrades; and (2) the interconnection customer's previous deposit and aggregate payments to the EDC for such interconnection facilities and distribution upgrades. If the interconnection customer's cost responsibility exceeds its previous deposit and aggregate payments, the EDC shall invoice the interconnection customer for the amount due and the interconnection customer shall make payment to the EDC within 30 calendar days. If the interconnection customer's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, the EDC shall refund to the interconnection customer an amount equal to the difference within 30 calendar days after the final accounting report. Upon request from the interconnection customer, if the difference between the budget estimate and the actual cost exceeds 20%, the EDC will provide a written explanation for the difference.

5.1.3 If a Party disputes any portion of its payment obligation pursuant to this Article 5, such Party shall pay in a timely manner all non-disputed portions of its invoice, and such disputed amount shall be resolved pursuant to the dispute resolution provisions contained in Article 8. A

Party disputing a portion of an Article 5 payment shall not be considered to be in default of its obligations pursuant to this Article.

5.2 Interconnection Customer Deposit

At least 20 business days prior to the commencement of the design, procurement, installation, or construction of the EDC's interconnection facilities and distribution upgrades, the interconnection customer shall provide the EDC with a deposit equal to 100% of the estimated, non-binding cost to procure, install, or construct any such facilities.

Article 6. Assignment, Limitation on Damages, Indemnity, Force Majeure, and Default

6.1 Assignment

This Agreement may be assigned by either Party. If the interconnection customer attempts to assign this agreement, the assignee must agree to the terms of this Agreement in writing and such writing must be provided to the EDC. Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same obligations as the assignor.

6.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate (including mergers consolidations, transfers or a sale of a substantial portion of the Party's assets between the Party and another entity), of the assigning Party that has an equal or greater credit rating and the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement.

6.1.2 The interconnection customer can assign this Agreement, without the consent of the EDC, for collateral security purposes to aid in providing financing for the distributed generation facility.

6.2 Limitation on Damages

Except for cases of gross negligence or willful misconduct, the liability of any Party to this Agreement shall be limited to direct actual damages and reasonable attorney's fees, and all other damages at law are waived. Under no circumstances, except for cases of gross negligence or willful misconduct, shall any Party or its directors, officers, employees and agents, or any of them, be liable to another Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary or consequential damages, including lost profits, lost revenues, replacement power, cost of capital or replacement equipment. This limitation on damages shall not affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement. The provisions of this Article 6.2 shall survive the termination or expiration of the Agreement.

6.3 Indemnity

- 6.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 6.2.
- 6.3.2 The interconnection customer shall indemnify and defend the EDC and the EDC's directors, officers, employees, agents, from all damages and expenses resulting from a third party claim arising out of or based upon the Interconnection customer's (a) negligence or willful misconduct or (b) breach of this Agreement, except to the extent caused by the EDC's gross negligence or willful misconduct.
- 6.3.3 The EDC shall indemnify and defend the interconnection customer and the interconnection customer's directors, officers, employees, and agents from all damages and expenses resulting from a third party claim arising out of or based upon the EDC's (a) negligence or willful misconduct or (b) breach of this Agreement, except to the extent caused by the interconnection customer's gross negligence or willful misconduct.
- 6.3.4 Within 5 business days after receipt by an indemnified Party of any claim or notice that an action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply has commenced, the indemnified Party shall notify the indemnifying Party of such fact. The failure to notify or a delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.
- 6.3.5 If an indemnified Party is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, such indemnified Party may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 6.3.6 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this Article, the amount owing to the indemnified person shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.

6.4 Force Majeure

- 6.4.1 As used in this Article, a force majeure event shall mean any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause

beyond a Party's control. A force majeure event does not include an act of gross negligence or intentional wrongdoing by the Party claiming force majeure.

- 6.4.2 If a force majeure event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the force majeure event (Affected Party) shall notify the other Party of the existence of the force majeure event within one business day. The notification must specify the circumstances of the force majeure event, its expected duration, and the steps that the Affected Party is taking and will take to mitigate the effects of the event on its performance. If the initial notification is verbal, it must be followed up with a written notification within one business day. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the force majeure event until the event ends. The Affected Party may suspend or modify its obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the force majeure event cannot be otherwise mitigated.

6.5 Default

- 6.5.1 No default shall exist when the failure to discharge an obligation (other than the payment of money) results from a force majeure event as defined in this Agreement, or the result of an act or omission of the other Party.
- 6.5.2 A Party shall be in default ("Default") of this Agreement if (1) it fails in any material respect to comply with, observe or perform, or defaults in the performance of, any covenant or obligation under this Agreement and fails to cure such failure within 60 calendar days after receiving written notice from the other Party. Upon a default of this Agreement, the non-defaulting Party shall give written notice of such default to the defaulting Party. Except as provided in Article 6.5.3, the defaulting Party has 60 calendar days after receipt of the default notice to cure such default; provided however, if the default cannot be cured within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after original notice and complete such cure within six months from receipt of the default notice; and, if cured within such time, the default specified in such notice shall cease to exist.
- 6.5.3 If a Party has assigned this Agreement that is not specifically authorized by Article 6.1 and fails to provide reasonable access pursuant to Article 2.3, is in default of its obligations pursuant to Article 7, or if a Party is in default of its payment obligations pursuant to Article 5 of this Agreement, the defaulting Party has 30 days from receipt of the default notice to cure such default.
- 6.5.4 If a default is not cured as provided for in this Article, or if a default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by

written notice, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article will survive termination of this Agreement.

Article 7. **Insurance**

For distributed generation facilities with a nameplate capacity of 1 MW or above, the interconnection customer shall carry insurance coverage that the maximum comprehensive/general liability coverage that shall be continuously maintained by the interconnection customer during the term shall be not less than \$2,000,000 for each occurrence, and an aggregate, if any, of at least \$4,000,000. The EDC, its officers, employees and agents will be added as an additional insured on this policy. The interconnection customer agrees to provide the EDC with at least 30 calendar days advance written notice of cancellation, a reduction in limits, or non-renewal of any insurance policy required herein.

Article 8. **Dispute Resolution**

- 8.1 Parties shall attempt to resolve all disputes regarding interconnection as provided in this section in a good faith manner.
- 8.2 If there is a dispute between the Parties about an interpretation of the Agreement, the aggrieved Party shall issue a written notice to the other Party to the agreement that specifies the dispute and the Agreement articles that are disputed.
- 8.3 A meeting between the Parties shall be held within ten days after receipt of the written notice. Persons with decision-making authority from each Party shall attend such meeting. If the dispute involves technical issues, persons with sufficient technical expertise and familiarity with the issue in dispute from each Party shall also attend the meeting. The meeting may be conducted by teleconference.
- 8.4 After the first meeting, each Party may seek resolution through complaint or mediation procedures available at the Commission. The Commission may designate an engineer from the Commission's Energy Division to assist in resolving the dispute. Dispute resolution shall be conducted in a manner designed to minimize costs and delay. Dispute resolution may be conducted by phone.
- 8.5 Pursuit of dispute resolution may not affect an interconnection request or an interconnection applicant's position in the EDC's interconnection queue.
- 8.6 If the Parties fail to resolve their dispute under the dispute resolution provisions of this Article, nothing in this Article shall affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement.

Article 9. **Miscellaneous**

- 9.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of Illinois, without regard to its conflicts of law principles. This Agreement is subject to all applicable laws and regulations. Each Party expressly reserves the right to seek change in, appeal, or otherwise contest any laws, orders or regulations of a governmental authority. The language in all parts of this Agreement shall in all cases be construed as a whole according to its fair meaning and not strictly for or against EDC or interconnection customer, regardless of the involvement of either Party in drafting this instrument.

9.2 Amendment

Modification of this Agreement shall be only by a written instrument duly executed by both Parties.

9.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

9.4 Waiver

9.4.1 Except as otherwise provided in this Agreement, a Party's compliance with any obligation, covenant, agreement, or condition herein may be waived by the Party entitled to the benefits thereof only by a written instrument signed by the Party granting such waiver, but such waiver or failure to insist upon strict compliance with such obligation, covenant, agreement, or condition will not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

9.4.2. Failure of any Party to enforce or insist upon compliance with any of the terms or conditions of this Agreement, or to give notice or declare this Agreement or the rights hereunder terminated, shall not constitute a waiver or relinquishment of any rights set out herein, but the same shall be and remain at all times in full force and effect, unless and only to the extent expressly set forth in a written document signed by the Party granting such waiver or relinquishing any such right(s). Any waiver granted, or relinquishment of any right, by a Party shall not operate as a relinquishment of any other rights or a waiver or of any other failure of the Party granted the waiver to comply with any obligation, covenant, agreement, or condition herein.

9.5 Entire Agreement

Except as provided in Article 9.1, this Agreement, including all attachments, constitutes the entire Agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or

agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

9.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

9.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

9.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other governmental authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

9.9 Environmental Releases

Each Party shall notify the other Party of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Distributed generation facility or the Interconnection facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

9.10 Subcontractors

Nothing in this Agreement shall prevent a Party from using the services of any subcontractor it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

9.10.1 A subcontract relationship does not relieve any Party of any of its obligations under this Agreement. The hiring Party remains responsible to

the other Party for the acts or omissions of its subcontractor. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

9.10.2 The obligations under this Article cannot be limited in any way by any limitation of subcontractor's insurance.

Article 10. Notices

10.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to Interconnection Customer:

Interconnection Customer: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ E-mail _____

If to EDC:

EDC _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ E-mail _____

Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other Party and not required by this Agreement to be in writing may be given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out above.

10.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

If to Interconnection Customer:

Interconnection Customer: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

If to EDC:

EDC: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

10.3 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

EDC's Operating Representative: _____

Attention: _____

Address: _____

City: _____ State: _____ Zip: _____

10.4 Changes to the Notice Information

Either Party may change this notice information by giving five business days written notice before the effective date of the change.

Article 11. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Interconnection Customer:

Name: _____

Title: _____

Date: _____

For EDC:

Name: _____

Title: _____

Date: _____

Attachment 1

Definitions

Adverse system impact - A negative effect that compromises the safety or reliability of the electric distribution system or materially affects the quality of electric service provided by the electric distribution company (EDC) to other customers.

Applicable laws and regulations – All duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority, having jurisdiction over the parties.

Commissioning test – Tests applied to a distributed generation facility by the applicant after construction is completed to verify that the facility does not create adverse system impacts. At a minimum, the scope of the commissioning tests performed shall include the commissioning test specified IEEE Standard 1547 Section 5.4 “Commissioning tests.”

Distributed generation facility - The equipment used by an interconnection customer to generate or store electricity that operates in parallel with the electric distribution system. A distributed generation facility typically includes an electric generator, prime mover, and the interconnection equipment required to safely interconnect with the electric distribution system or a local electric power system.

Distribution upgrades – A required addition or modification to the EDC's electric distribution system at or beyond the point of interconnection to accommodate the interconnection of a distributed generation facility. Distribution upgrades do not include interconnection facilities.

Electric distribution company or EDC - Any electric utility entity subject to the jurisdiction of the Illinois Commerce Commission.

Electric distribution system –The facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries from interchanges with higher voltage transmission networks that transport bulk power over longer distances. The voltage levels at which electric distribution systems operate differ among areas but generally carry less than 69 kilovolts of electricity. Electric distribution system has the same meaning as the term Area EPS, as defined in 3.1.6.1 of IEEE Standard 1547.

Facilities study – An engineering study conducted by the EDC to determine the required modifications to the EDC’s electric distribution system, including the cost and the time required to build and install such modifications, as necessary to accommodate an interconnection request.

Force majeure event – Shall mean any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A force majeure event does not include an act of gross negligence or intentional wrongdoing

Governmental authority – Any federal, State, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the interconnection customer, EDC or any affiliate thereof.

IEEE Standard 1547 - The Institute of Electrical and Electronics Engineers, Inc. (IEEE), 3 Park Avenue, New York, NY 10016-5997, Standard 1547 (2003) "Standard for Interconnecting Distributed Resources with Electric Power Systems."

IEEE Standard 1547.1 - The IEEE Standard 1547.1 (2005) "Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems."

Interconnection agreement or Agreement – The agreement between the interconnection customer and the EDC. The interconnection agreement governs the connection of the distributed generation facility to the EDC's electric distribution system and the ongoing operation of the distributed generation facility after it is connected to the EDC's electric distribution system.

Interconnection customer – The entity entering into this Agreement for the purpose of interconnecting a distributed generation facility to the EDC's electric distribution system.

Interconnection equipment – A group of components or an integrated system connecting an electric generator with a local electric power system or an electric distribution system that includes all interface equipment including switchgear, protective devices, inverters or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.

Interconnection facilities – Facilities and equipment required by the EDC to accommodate the interconnection of a distributed generation facility. Collectively, interconnection facilities include all facilities, and equipment between the distributed generation facility and the point of interconnection, including modification, additions, or upgrades that are necessary to physically and electrically interconnect the distributed generation facility to the electric distribution system. Interconnection facilities are sole use facilities and do not include distribution upgrades.

Interconnection request – An interconnection customer's request, on the required form, for the interconnection of a new distributed generation facility, or to increase the capacity or change the operating characteristics of an existing distributed generation facility that is interconnected with the EDC's electric distribution system.

Interconnection study - Shall mean any of the following studies, as determined to be appropriate by EDC: the interconnection feasibility study, the interconnection system impact study, and the interconnection facilities study.

Illinois standard distributed generation interconnection rules – The most current version of the procedures for interconnecting distributed generation facilities adopted by the Illinois Commerce Commission. See 83 Ill. Adm. Part 466.

Parallel operation or parallel - The state of operation which occurs when a distributed generation facility is connected electrically to the electric distribution system.

Point of interconnection - The point where the distributed generation facility is electrically connected to the electric distribution system. Point of interconnection has the same meaning as the term “point of common coupling” defined in 3.1.13 of IEEE Standard 1547.

Witness test - For lab certified equipment, verification (either by an on-site observation or review of documents) by the EDC that the interconnection installation evaluation required by IEEE Standard 1547 Section 5.3 and the commissioning test required by IEEE Standard 1547 Section 5.4 have been adequately performed. For interconnection equipment that has not been lab certified, the witness test shall also include verification by the EDC of the on-site design tests as required by IEEE Standard 1547 Section 5.1 and verification by the EDC of production tests required by IEEE Standard 1547 Section 5.2. All tests verified by the EDC are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

Attachment 2

Construction Schedule, Proposed Equipment & Settings

This attachment is to be completed by the interconnection customer and shall include the following:

1. The construction schedule for the distributed generation facility.
2. A one-line diagram indicating the distributed generation facility, interconnection equipment, interconnection facilities, metering equipment, and distribution upgrades.
3. Component specifications for equipment identified in the one-line diagram.
4. Component settings.
5. Proposed sequence of operations.
6. A three line diagram showing current potential circuits for protective relays.
7. Relay tripping and control schematic diagram.

Attachment 3
Description, Costs and Time Required to Build and Install EDC's
Interconnection Facilities

This attachment is to be completed by the EDC and shall include the following:

1. Required interconnection facilities, including any required metering.
2. An estimate of itemized costs charged by EDC for interconnection, including overheads, based on results from prior studies.
3. An estimate for the time required to build and install the EDC's interconnection facilities based on results from prior studies.

Attachment 4

Operating Requirements for Distributed Generation Facilities Operating in Parallel

The EDC shall list specific operating practices that apply to this distributed generation interconnection and the conditions under which each listed specific operating practice applies.

Attachment 5

Monitoring and Control Requirements

This attachment is to be completed by the EDC and shall include the following:

1. The EDC's monitoring and control requirements must be specified along with a reference to the EDC's written requirements documents from which these requirements are derived.
2. An internet link to the requirements documents.

Attachment 6

Metering Requirements

This attachment is to be completed by the EDC and shall include the following:

1. The metering requirements for the distributed generation facility.
2. Identification of the appropriate tariffs that establish these requirements.
3. An internet link to these tariffs.

Attachment 7

As Built Documents

This attachment is to be completed by the interconnection customer and shall include the following:

When it returns the certificate of completion to the EDC, the interconnection customer shall provide the EDC with documents detailing the as-built status of the following:

1. A one-line diagram indicating the distributed generation facility, interconnection equipment, interconnection facilities, and metering equipment
2. Component specifications for equipment identified in the one-line diagram
3. Component settings
4. Proposed sequence of operations
5. A three line diagram showing current potential circuits for protective relays
6. Relay tripping and control schematic diagram

Section 466.APPENDIX D Levels 2 to 4 Application

**Level 2, Level 3 & Level 4
Interconnection Request Application Form
(Greater than 10 kW to 10 MW or less)**

Interconnection Customer Contact Information

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (if different from Customer Contact Information)

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Facility Address (if different from above): _____
City: _____ State: _____ Zip Code: _____
Electric Distribution Company (EDC) serving Facility site: _____
Electric Supplier (if different from EDC): _____
Account Number of Facility site (existing EDC customers): _____
Inverter Manufacturer: _____ Model: _____

Equipment Contractor

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor (if Different from Equipment Contractor):

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone (Daytime): _____ (Evening): _____

Facsimile Number: _____ E-Mail Address: _____

License number: _____

Electric Service Information for Customer Facility Where Generator Will Be Interconnected

Capacity: _____ (Amps) Voltage: _____ (Volts)

Type of Service: ☐ Single Phase ☐ Three Phase

If 3 Phase Transformer, Indicate Type

Primary Winding ☐ Wye ☐ Delta

Secondary Winding ☐ Wye ☐ Delta

Transformer Size: _____ Impedance: _____

Intent of Generation

☐ Offset Load (Unit will operate in parallel, but will not export power to EDC)

☐ Net Meter (Unit will operate in parallel and will export power pursuant to Illinois Net Metering or other filed tariff(s))

☐ Wholesale Market Transaction (Unit will operate in parallel and participate in PJM or MISO market(s) pursuant to a PJM Wholesale Market Participation Agreement or MISO equivalent)

☐ Back-up Generation (Units that temporarily operate in parallel with the electric distribution system for more than 100 milliseconds)

Note: Backup units that do not operate in parallel for more than 100 milliseconds do not need an interconnection agreement.

Generator & Prime Mover Data

ENERGY SOURCE (Hydro, Wind, Solar, Process Byproduct, Biomass, Oil, Natural Gas, Coal, etc.):		
ENERGY CONVERTER TYPE (Wind Turbine, Photovoltaic Cell, Fuel Cell, Steam Turbine, etc.):		
GENERATOR SIZE: <input type="checkbox"/> kW or <input type="checkbox"/> kVA	NUMBER OF UNITS:	TOTAL CAPACITY: <input type="checkbox"/> kW or <input type="checkbox"/> kVA
GENERATOR TYPE (Check one): <input type="checkbox"/> Induction <input type="checkbox"/> Inverter <input type="checkbox"/> Synchronous <input type="checkbox"/> Other _____		

Requested Procedure Under Which to Evaluate Interconnection Request¹

Please indicate below which review procedure applies to the interconnection request. The review procedure used is subject to confirmation by the EDC.

- ☐ **Level 2** – Lab-certified interconnection equipment with an aggregate electric nameplate capacity less than or equal to 2 MW. Lab certified is defined in 466.30 (Application fee is \$100.00 plus \$1.00 per kW).
- ☐ **Level 3** – Distributed generation facility does not export power. Nameplate capacity rating is equal to less than or equal to 50KW if connecting to area network or equal to or less than or equal to 10 MW if connecting to a radial distribution feeder. (Application fee amount is \$500.00 plus \$2.00 per kW).
- ☐ **Level 4** – Nameplate capacity rating is less than or equal to 10 MW and the distributed generation facility does not qualify for a Level 1, Level 2 or Level 3 review or, the distributed generation facility has been reviewed but not approved under a Level 1, Level 2 or Level 3 review. (Application fee amount is \$1,000 plus \$2.00 per kW, to be applied toward any subsequent studies related to this application).

¹ **Note:** Descriptions for interconnection review categories do not list all criteria that must be satisfied. For a complete list of criteria, please refer to 83 Ill. Adm. Part 466, *Electric Interconnection of Distributed Generation Facilities*.

Distributed Generation Facility Information

Commissioning Date: _____

List interconnection components/system(s) to be used in the distributed generation facility that are lab certified.

Component/System	NRTL Providing Label & Listing
------------------	--------------------------------

1. _____
2. _____
3. _____
4. _____
5. _____

Please provide copies of manufacturer brochures or technical specifications

Energy Production Equipment/Inverter Information:

☐ Synchronous ☐ Induction ☐ Inverter ☐ Other _____

Rating: _____ kW Rating: _____ kVA

Rated Voltage: _____ Volts

Rated Current: _____ Amps

System Type Tested (Total System): ☐ Yes ☐ No; attach product literature

For Synchronous Machines:

Note: Contact EDC to determine if all the information requested in this section is required for the proposed distributed generation facility.

Manufacturer: _____

Model No. _____ Version No. _____

Submit copies of the Saturation Curve and the Vee Curve

☐ Salient ☐ Non-Salient

Torque: _____ lb-ft Rated RPM: _____ Field Amperes: _____ at rated generator voltage and current and _____ % PF over-excited

Type of Exciter: _____

Output Power of Exciter: _____

Type of Voltage Regulator: _____ Locked Rotor

Current: _____ Amps Synchronous Speed: _____ RPM

Winding Connection: _____ Min. Operating Freq./Time: _____

Generator Connection: ☐ Delta ☐ Wye ☐ Wye Grounded
Direct-axis Synchronous Reactance (X_d) _____ ohms
Direct-axis Transient Reactance (X'_d) _____ ohms
Direct-axis Sub-transient Reactance (X''_d) _____ ohms
Negative Sequence Reactance: _____ ohms
Zero Sequence Reactance: _____ ohms
Neutral Impedance or Grounding Resistor (if any): _____ ohms

For Induction Machines:

Note: Contact EDC to determine if all the information requested in this section is required for the proposed distributed generation facility.

Manufacturer: _____
Model No. _____ Version No. _____
Locked Rotor Current: _____ Amps
Rotor Resistance (R_r) _____ ohms Exciting Current _____ Amps
Rotor Reactance (X_r) _____ ohms Reactive Power Required: _____
Magnetizing Reactance (X_m) _____ ohms _____ VARs (No Load)
Stator Resistance (R_s) _____ ohms _____ VARs (Full Load)
Stator Reactance (X_s) _____ ohms
Short Circuit Reactance (X''_d) _____ ohms
Phases: ☐ Single ☐ Three-Phase
Frame Size: _____ Design Letter: _____ Temp. Rise: _____ °C.

Reverse Power Relay Information (Level 3 Review Only)

Manufacturer: _____
Relay Type: _____ Model Number: _____
Reverse Power Setting: _____
Reverse Power Time Delay (if any): _____

Additional Information For Inverter Based Facilities

Inverter Information:

Manufacturer: _____ Model: _____
Type: ☐ Forced Commutated ☐ Line Commutated
Rated Output _____ Watts _____ Volts
Efficiency _____ % Power Factor _____ %

Inverter UL1547 Listed: : ☐ Yes ☐ No

DC Source / Prime Mover:

Rating: _____ kW Rating: _____ kVA

Rated Voltage: _____ Volts

Open Circuit Voltage (If applicable): _____ Volts

Rated Current: _____ Amps

Short Circuit Current (If applicable): _____ Amps

Other Facility Information:

One Line Diagram attached: ☐ Yes

Plot Plan attached: ☐ Yes

Customer Signature

I hereby certify that all of the information provided in this Interconnection Request Application Form is true.

Applicant Signature: _____

Title: _____ Date: _____

An application fee is required before the application can be processed. Please verify that the appropriate fee is included with the application:

Amount _____

EDC Acknowledgement

Receipt of the application fee is acknowledged and this interconnection request is complete.

EDC Signature: _____ Date: .

Printed Name: _____ Title: _____

Section 466.APPENDIX E Interconnection Feasibility Study Agreement

Interconnection Feasibility Study Agreement

This agreement ("Agreement") is made and entered into this _____ day of _____ by and between _____ ("interconnection customer"), as an individual person, or as a _____ organized and existing under the laws of the State of _____, and _____ ("Electric Distribution Company" (EDC)), a _____ existing under the laws of the State of Illinois. Interconnection customer and EDC each may be referred to as a "Party," or collectively as the "Parties."

Recitals:

Whereas, interconnection customer is proposing to develop a distributed generation facility or modifying to an existing distributed generation facility consistent with the interconnection request application form submitted by interconnection customer on _____; and

Whereas, interconnection customer desires to interconnect the distributed generation facility with EDC's electric distribution system; and

Whereas, interconnection customer has requested EDC to perform an interconnection feasibility study to assess the feasibility of interconnecting the proposed distributed generation facility to EDC's electric distribution system;

Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. All terms defined in Section 466.30 of the Illinois Distributed Generation Interconnection Standard shall have the meanings indicated in those Rules when used in this Agreement.
2. Interconnection customer elects and EDC shall cause to be performed an interconnection feasibility study consistent with Section 466.120 of the Illinois Distributed Generation Interconnection Standard.
3. The scope of the interconnection feasibility study shall be based upon the information set forth in the interconnection request application form and Attachment A to this Agreement.
4. The interconnection feasibility study shall be based on the technical information provided by interconnection customer in the interconnection request application form, as modified with the agreement of the parties. EDC has the right to request additional technical information from interconnection customer during the course of the interconnection feasibility study. If the interconnection customer modifies its interconnection request, the time to complete the interconnection feasibility study may be extended by the EDC.
5. In performing the study, EDC shall rely on existing studies of recent vintage to the extent practical. The interconnection customer will not be charged for such existing studies; however, interconnection customer is responsible for the cost of applying any existing

- study to the interconnection customer specific requirements and for any new study that the EDC performs.
6. The interconnection feasibility study report must provide the following information:
 - 6.1 Identification of any equipment short circuit capability limits exceeded as a result of the interconnection,
 - 6.2 Identification of any thermal overload or voltage limit violations resulting from the interconnection, and
 - 6.3 A description and non-binding estimated cost of facilities required to interconnect the distributed generation facility to EDC's electric distribution system as required under Section 466.120(e)(1).
 7. Interconnection customer shall provide a study deposit equal to 100 percent of the estimated non-binding study costs when the interconnection customer is the first in the queue.
 8. The interconnection feasibility study shall be completed and the results shall be transmitted to interconnection customer within 25 business days after this Agreement is signed by the Parties.
 9. Study fees shall be based on actual costs and will be invoiced to interconnection customer after the study is transmitted to interconnection customer. The invoice must include an itemized listing of employee time and costs expended on the study.
 10. Interconnection customer shall pay any actual study costs that exceed the deposit without interest within 30 calendar days on receipt of the invoice. EDC shall refund any excess deposit amount without interest within 30 calendar days of the invoice.

In witness whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of interconnection customer]

Signed _____

Name (Printed): _____ Title _____

[Insert name of EDC]

Signed _____

Name (Printed): _____ Title _____

Attachment A to Interconnection Feasibility Study Agreement
Assumptions Used in Conducting the Interconnection Feasibility Study

The interconnection feasibility study will be based upon the information in the interconnection request application form and agreed upon on_____:

1. Point of interconnection and configuration to be studied.

2. Alternative points of interconnection and configurations to be studied.

Note: 1 and 2 are to be completed by the interconnection customer. Any additional assumptions (explained below) may be provided by either the interconnection customer or the EDC.

Section 466.APPENDIX F Interconnection System Impact Study Agreement

Interconnection System Impact Study Agreement

This agreement (“Agreement”) is made and entered into this _____ day of _____ by and between _____ (“interconnection customer”), as an individual person, or as a _____ organized and existing under the laws of the State of _____, and _____ (“Electric Distribution Company” (EDC)), a _____ existing under the laws of the State of Illinois. Interconnection customer and EDC each may be referred to as a “Party,” or collectively as the “Parties.”

Recitals:

Whereas, interconnection customer is proposing to develop a distributed generation facility or modifying an existing distributed generation facility consistent with the interconnection request application form completed by interconnection customer on _____; and

Whereas, interconnection customer desires to interconnect the distributed generation facility to EDC’s electric distribution system; and

Whereas, EDC has completed an interconnection feasibility study and provided the results of said study to interconnection customer (this recital to be omitted if the Parties have agreed to forego the interconnection feasibility study); and

Whereas, interconnection customer has requested EDC to perform an interconnection system impact study to assess the impact of interconnecting the distributed generation facility to EDC’s electric distribution system;

Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. All terms defined in Section 466.30 of the Illinois Distributed Generation Interconnection Standard shall have the meanings indicated in those Rules when used in this Agreement.
2. Interconnection customer elects and EDC shall cause to be performed an interconnection system impact study consistent with Section 466.120 of the Illinois Distributed Generation Interconnection Standard.
3. The scope of the interconnection system impact study shall be based upon the information set forth in the interconnection request application form and in Attachment A to this Agreement.
4. The interconnection system impact study will be based upon the interconnection feasibility study and the technical information provided by interconnection customer in the interconnection request application form. EDC reserves the right to request additional technical information from interconnection customer. If interconnection customer modifies its proposed point of interconnection, interconnection request, or the technical information provided therein is modified, the time to complete the interconnection system

- impact study may be extended.
5. The interconnection system impact study report shall provide the following information:
 - 5.1 Identification of any equipment short circuit capability limits exceeded as a result of the interconnection,
 - 5.2 Identification of any thermal overload or voltage limit violations resulting from the interconnection,
 - 5.3 Identification of any instability or inadequately damped response to system disturbances resulting from the interconnection and
 - 5.4 Description and non-binding estimated cost of facilities required to interconnect the distributed generation facility to EDC's electric distribution system and to address the identified short circuit, thermal overload, voltage, and instability issues as required under Part 466.120(e)(2).
 6. Interconnection customer shall provide a study deposit equal to 100 percent of estimated non-binding study costs when the interconnection customer is the first in the queue.
 7. The interconnection system impact study, if required, shall be completed and the results transmitted to interconnection customer within 25 business days after this Agreement is signed by the Parties.
 8. Study fees shall be based on actual costs and will be invoiced to interconnection customer after the study is transmitted to interconnection customer. The invoice shall include an itemized listing of employee time and costs expended on the study.
 9. Interconnection customer shall pay any study costs that exceed the deposit within 30 calendar days on receipt of the invoice. EDC shall refund any excess deposit amount within 30 calendar days of the invoice.

In witness thereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of interconnection customer]

Signed _____

Name (Printed): _____ Title _____

[Insert name of EDC]

Signed _____

Name (Printed): _____ Title _____

Attachment A to Interconnection System Impact Study Agreement
Assumptions Used in Conducting the Interconnection System Impact Study

The interconnection system impact study shall be based upon the results of the interconnection feasibility study, subject to any modifications in accordance with Section 466.120 of the Illinois Distributed Generation Interconnection Standard, and the following assumptions:

1. Point of interconnection and configuration to be studied.

2. Alternative Points of interconnection and configurations to be studied.

Note: 1 and 2 are to be completed by the interconnection customer. Any additional assumptions (explained below) may be provided by either the interconnection customer or the EDC.

Section 466.APPENDIX G Interconnection Facilities Study Agreement

Interconnection Facilities Study Agreement

This agreement ("Agreement") is made and entered into this _____ day of _____ by and between _____ ("interconnection customer"), as an individual person, or as a _____ organized and existing under the laws of the State of _____, and _____ ("Electric Distribution Company" (EDC)), a _____ existing under the laws of the State of Illinois. Interconnection customer and EDC each may be referred to as a "Party," or collectively as the "Parties."

Recitals:

Whereas, interconnection customer is proposing to develop a distributed generation facility or modifying an existing distributed generation facility consistent with the interconnection request application form completed by interconnection customer on _____; and

Whereas, interconnection customer desires to interconnect the distributed generation facility with EDC's electric distribution system; and

Whereas, EDC has completed an interconnection system impact study and provided the results of said study to interconnection customer; and

Whereas, interconnection customer has requested EDC to perform an interconnection facilities study to specify and estimate the cost of the equipment, engineering, procurement and construction work needed to interconnect the distributed generation facility;

Now, therefore, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

1. All terms defined in Section 466.30 of the Illinois Distributed Generation Interconnection Standard shall have the meanings indicated in those Rules when used in this Agreement.
2. Interconnection customer elects and EDC shall cause an interconnection facilities study consistent with Section 466.120 of the Illinois Distributed Generation Interconnection Standard.
3. The scope of the interconnection facilities study shall be determined by the data provided in Attachment A to this Agreement.
4. An interconnection facilities study report (1) shall provide a description, estimated cost of distribution upgrades, and a schedule for required facilities to interconnect the distributed generation facility to EDC's electric distribution system; and (2) shall address all issues identified in the interconnection system impact study (or identified in this study if the system impact study is combined herein).
5. Interconnection customer shall provide a study deposit of 100 percent of estimated non-binding study costs when it is first in the queue.

6. In cases where no distribution upgrades are required, the interconnection facilities study shall be completed and the results shall be transmitted to interconnection customer within 15 business days after this Agreement is signed by the Parties. In cases where distribution upgrades are required, the interconnection facilities study shall be completed and the results shall be transmitted to interconnection customer within 30 business days after this Agreement is signed by the Parties.
7. Study fees shall be based on actual costs and will be invoiced to interconnection customer after the study is transmitted to interconnection customer. The invoice shall include an itemized listing of employee time and costs expended on the study.
8. Interconnection customer shall pay any actual study costs that exceed the deposit within 30 calendar days on receipt of the invoice. EDC shall refund any excess deposit amount within 30 calendar days of the invoice.

In witness whereof, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

[Insert name of interconnection customer]

Signed _____

Name (Printed): _____ Title _____

[Insert name of EDC]

Signed _____

Name (Printed): _____ Title _____

Attachment A to Interconnection Facilities Study Agreement

Minimum Data That Interconnection Customer Must Provide With the Interconnection Facilities Study Agreement.

Provide location plan and simplified one-line diagram of the distributed generation facilities.

For staged projects, please indicate size and location of planned additional future generation.

On the one-line diagram, indicate the generation capacity attached at each metering location. (Maximum load on CT/PT).

On the one-line diagram, indicate the location of auxiliary power. (Minimum load on CT/PT) Amps.

One set of metering is required for each generation connection to the EDC's electric distribution system.

Number of generation connections: _____

Will an alternate source of auxiliary power be available during CT/PT maintenance?

Yes _____ No _____.

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total distributed generation capacity? Yes _____ No _____ (Please indicate on the one-line diagram).

What type of control system or PLC will be located at the distributed generation facility?
_____.

What protocol does the control system or PLC use? _____.

Please provide a scale drawing of the site. Indicate the point of common coupling, distribution line, and property lines.

Number of third party easements required for EDC's interconnection facilities:
_____.

To be completed in coordination with EDC.

Is the distributed generation facility located in EDC's service area? Yes _____ No _____

If No, please provide name of local provider:

Please provide the following proposed schedule dates:

Begin Construction Date: _____

Generator step-up transformers receive back feed power Date: _____

Generation Testing Date: _____

Commercial Operation Date: _____